

**REC NETWORKS**

**RM-9719  
COMMENTS**

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**Before The  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, DC**

In the matter of:	)	
	)	
Amendment to Parts 73 and 90 of the	)	
Commission's Rules to Authorize the	)	RM-9719
Transmission of Emergency Signals on	)	
Channel 200	)	

**EXECUTIVE SUMMARY**

In this pleading, REC Networks files comments in opposition to the use of Channel 200 (87.9 MHz) for the Emergency Radio Data Service ("ERDS"). We will demonstrate the following points:

- REC Networks and other parties have suggested the use of Channel 200 for use with the Low Power Radio Service as proposed in MM Docket 99-25.
- ERDS operating on Channel 200 will cause unacceptable first adjacent interference under existing Commission interference guidelines to FM stations operating on 88.1 and TV Channel 6, especially ERDS units operating mobile in higher elevation areas.
- LPFM operating on Channel 200 would protect FM stations operating on Channel 201 (88.1) as well as the aural carrier of NTSC Channel 6 (87.75).
- This service has the potential to destroy an educational program at St. Francis High School in Mountain View, CA.
- LPFM can utilize Channel 200 using existing FM receivers while ERDS would require special receivers in order to receive the emergency signals.
- The Public Safety Pool has many underutilized channels and newly allocated spectrum, which could be used for the ERDS service.
- We question the impact on current full power broadcasters as well as future low power broadcasters as a result of ECFS activations, especially for less urgent matters.
- We offer alternative radio services where one-way communications are permitted for emergency communications.

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**COMMENTS OF REC NETWORKS**

**A. BACKGROUND**

1. REC Networks ("REC"), a group of people who are interested in the establishment of a Low Power Radio Service hereby submits the following comments regarding Federal Signal Corporation's ("Federal") proposal to establish an Emergency Radio Data Service ("ERDS") on FM Channel 200 (87.9 MHz).

**B. INTERFERENCE TO FIRST ADJACENT CHANNEL FM AND TV SERVICES**

2. Federal has acknowledged that interference to existing FM and TV services is possible with the ERDS system operating on Channel 200.<sup>1</sup> Federal is proposing mobile operation of stations aboard police cars<sup>2</sup>, school buses and in railroad locomotives<sup>3</sup> as well as fixed operations<sup>4</sup> with a maximum ERP of one watt<sup>5</sup>. One watt can cover a considerable distance, especially in high-level terrain areas such as mountain passes.

3. Let's look at a major city like Los Angeles. Los Angeles has a FM station on 88.1 (KLON, Long Beach). This station currently operates 8kW with a 129m HAAT. There is a construction permit to increase the power to 35kW<sup>6</sup>. With this increased power, the KLON 60dBu-service contour is 46.074 km, which covers most of the Los Angeles Basin including Orange County. Appendices A through D contain maps which demonstrate the predicted interference to an 88.1 FM station by an ERDS station based on current FCC interference standards.

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1-Federal's petition, attachment C, page 7. "The potential is acknowledged for interference to adjacent frequencies, specifically to television channel 6 and adjacent FM channel 201 operations in the area very close to an ERDS transmitter."

2-Federal's petition, attachment B, page 8.

3-Federal's petition, attachment B, page 9.

4-Federal's petition, attachment B, page 10.

5-Federal's petition, attachment C, page 4.

6-FCC File Number BPED940713IZ.

4. In our comments<sup>7</sup> for the Low Power Radio Service, we called for stations on 87.9 operating at 10 watts at 30m HAAT to provide a 54 dBu interference contour to protect the 60dBu contours of Channel 6 and Channel 201 stations. We feel that ERDS stations would have to be subject to the same restrictions.

**C. IMPACT TO KSFH(FM)-MOUNTAIN VIEW, CA**

5. We are also concerned about KSFH-FM, a Class D station on Channel 200. Class D Secondary stations were permitted to move to Channel 200 under strict conditions. KSFH is currently the only station that has moved to Channel 200. ERDS would have a serious impact on the radio education program at St. Francis High School in Mountain View, CA. Here is how the school's website describes the station as well as the club that operates it:

***As the voice of Saint Francis, Radio Club members take to the airwaves every schoolday from 2 to 7 PM. Trained members help operate a real station which broadcasts on 87.9 FM. This is a fun way to learn hands-on broadcasting.***

As it says, this is a real radio station. We should be proud to have stations like KSFH on the air to give our future broadcasters a start. KSFH is an excellent example of future LPFM stations on 87.9 and 87.5. With many of the negative issues teenagers face, this is a positive one and out of all the organizations who want to destroy it, I would never imagine the public safety and law enforcement industry.

**D. CHANNEL 200 WOULD BE BETTER USED BY LPFM STATIONS**

6. Federal proposes an occasional "as-needed" fixed and mobile service operating one watt stations with no regard to adjacent channel stations.

7. REC proposes that Channel 200 (as well as 87.5 and 87.7) be used for full-time low power FM broadcasting. In our "SuperCoordinator" study<sup>8</sup>, we have shown that over 1,000 10 watt LPFM stations can be placed on 87.9 while affording first adjacent channel protections to Channel 201 and TV Channel 6.

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7-Revised Comments of REC Networks, MM Docket 99-25, Appendix A, page 45.

8-Amendment to Comments of REC Networks, July 16, 1999, MM Docket 99-25.

8. LPFM stations would be licensed to high schools, small colleges, churches, non-profit organizations and individuals who will operate the stations full time or will coordinate with other potential LPFM operators to run their stations part time. This is a better use of spectrum than what Federal is proposing.

**E. THIS SERVICE SHOULD USE PUBLIC SAFETY SPECTRUM**

9. Based on the itinerant nature of this service, the public interest would be better served if this service uses existing public safety spectrum.

10. Searching the WTB databases, we have found that **39.06 MHz** appears to be under used with only 24 license records. The largest user on this frequency appears to be the State Of Maryland. Most other users of the frequency appear to be very low power (2 watts or less) users.

11. With many public agencies migrating from the VHF Low Band to the 800 MHz and 700 MHz band, why not use these VHF Low Band frequencies that are abandoned for this new service?

**F. SINCE A NEW RADIO MUST BE PURCHASED, THIS IS A CONSUMER  
HARDSHIP.**

12. For Channel 200 to be used for LPFM, no new radio is required. As we had shown in our findings in MM Docket 99-25, virtually all radios manufactured today receive analog broadcasts on 87.9 with a majority of those receivers tuning down to 87.5 MHz.

13. In order to utilize the ERDS technology, a special receiver must be purchased<sup>9</sup>. It appears that most of these receivers will be sold in new cars. For existing consumers to use this technology, a new receiver must be purchased thus creating a consumer hardship.

14. Since we are creating a situation where a purchase will be required, we should not just limit our efforts to a single FM channel but we need to seriously look at other channels on other bands, including multiple channels for this purpose.

15. As we have demonstrated, there is available spectrum in the Public Safety Pool to perform this service on a nationwide basis.

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9 - Federal's petition, page 5.



**G. PERMISSIBLE COMMUNICATIONS**

16. REC questions the type of communications that will be permitted under this service. We have reviewed the types of communications being proposed under Federal's proposal and we can not find a service mentioned that could not be provided on spectrum outside the broadcast band.

17. We feel that there are too many different applications for one frequency. For example, an emergency vehicle running code-3 (with lights and siren) is going through a construction zone while a freight train runs on tracks parallel to the street while a school bus is pulled over in the other direction waiting for the emergency vehicle to pass by. This will cause four interfering signals, which would render this service useless in this situation.

18. Based on Federal's petition, this ERDS system will re-tune radios, turn off tape, turn off CD players and even turn an "off" radio on if an activation is detected<sup>10</sup>. This could have an adverse impact on broadcasters as their programming would be interrupted every time a freight train goes by, a school bus stops or any time you are going through a construction zone.

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10 - Federal's petition, page 6.

19. We are also concerned that "non-emergency" messages are transmitted from these stations. For example, in Arizona, the freeway message signs are used sometimes to give messages regarding drunk driving (like "get hammered, get nailed."). The problem is that if these signs are used too much for those purposes, they will be ignored if there's a real emergency. If ERDS transmits trivial or "non-emergency" messages, many people will ignore or disable their radio's ERDS capability.

20. In the case of railroad locomotives, what mechanism is put into place in the event that the train crosses into Canada?

#### **H. OTHER OPTIONS FOR THIS SERVICE**

21. Even though the Public Safety Pool would be the best place for this service, we can also suggest that the following spectrum can be used:

*CB and Family Radio Service.* These services specifically allow one-way transmissions for emergency communications.<sup>11</sup>

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11 - §95.413(c) allows the use of CB frequencies for one-way communications relating to emergency messages and travelers assistance. §95.193 allows for the use of FRS channels for one-way communications relating to emergency messages and traveler's assistance.

*49 MHz band.* The Commission may wish to look at options which would increase the power limits on the 49 MHz personal device frequencies to accomodate this system.

*Data signaling on 155.475 MHz.* Using the existing 155.475 inter-agency law enforcement frequency as well as the network of existing TIS stations, we can have stations on 155.475 transmit data signals that can carry the frequency of the TIS. Car receivers, upon reception of this activation signal can tune to the proper TIS frequency.

*TIS Stations, Signs and flashing lights.* The Public Safety Radio Services already has available to it, a voice grade radio service which can be received all car receivers. Through the use of flashing lights on signs, this can advise people to tune to the TIS frequency for an advisory. These signs are currently used in California and they can work.

*700 MHz band.* Recent congressional action has made portions of the spectrum that is currently TV Channels 60 through 69 available for public safety use. ERDS or a similar system can be placed in this new spectrum nationwide with minimal displacement of other spectrum users.

**I. IN CONCLUSION**

22. Federal's intentions with this service are a good one. If the ERDS can save one life, it is worth all of the money invested in it and we feel that the concept of an in-car emergency alerting system would be in the public interest. However, we do not feel that placing this service on Channel 200 is spectrum efficient and would meet the public interest. REC Networks feels that this service can be easily placed on existing public service spectrum.

We ask the Commission to TERMINATE this proceeding as proposed by Federal Signal Corporation.

Respectfully Submitted,

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October 14, 1999.

**CERTIFICATE OF SERVICE**

REC has served a copy of this filing upon the following:

FEDERAL SIGNAL CORPORATION

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Unsolicited Courtesy Copies to

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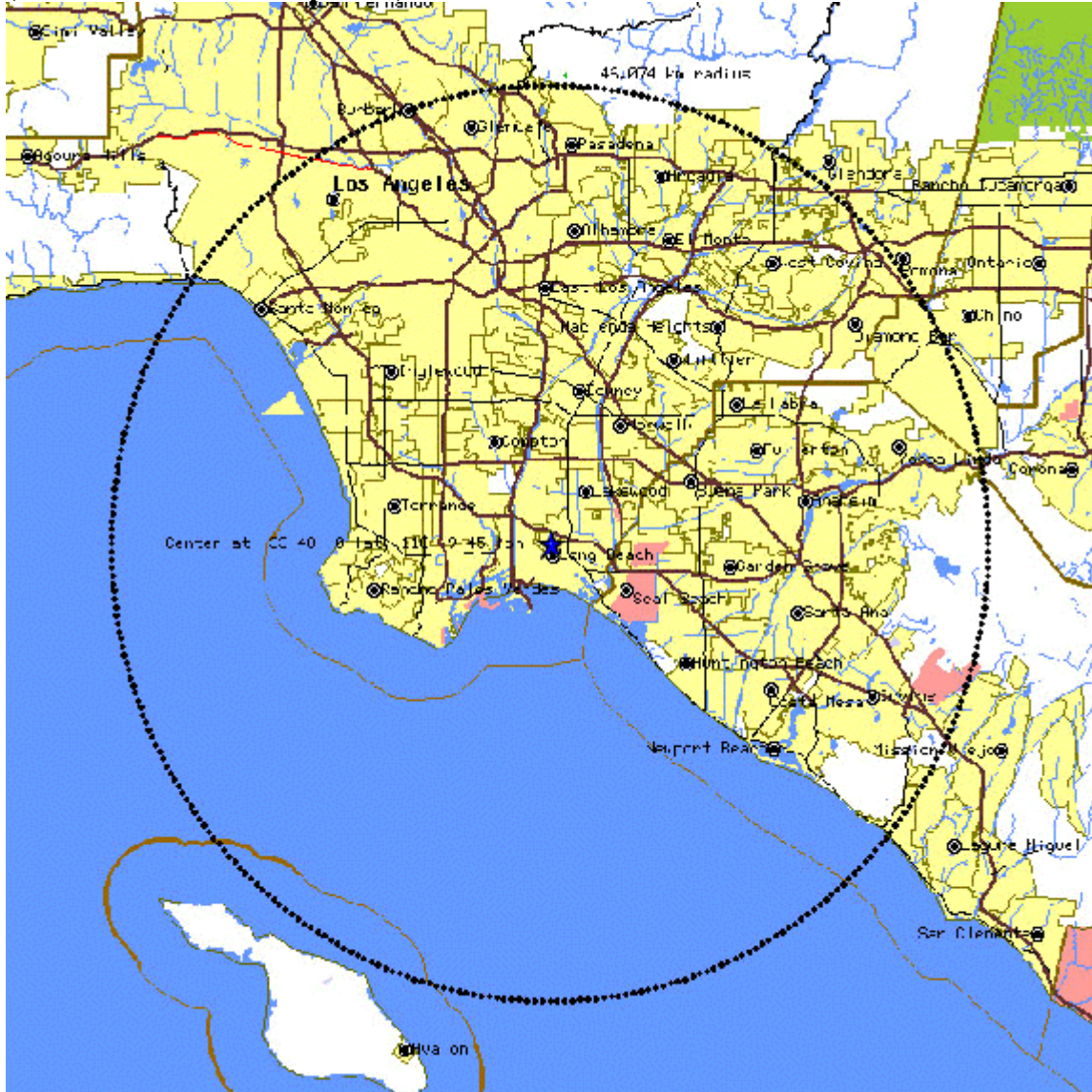
KSFH-FM

Saint Francis High School

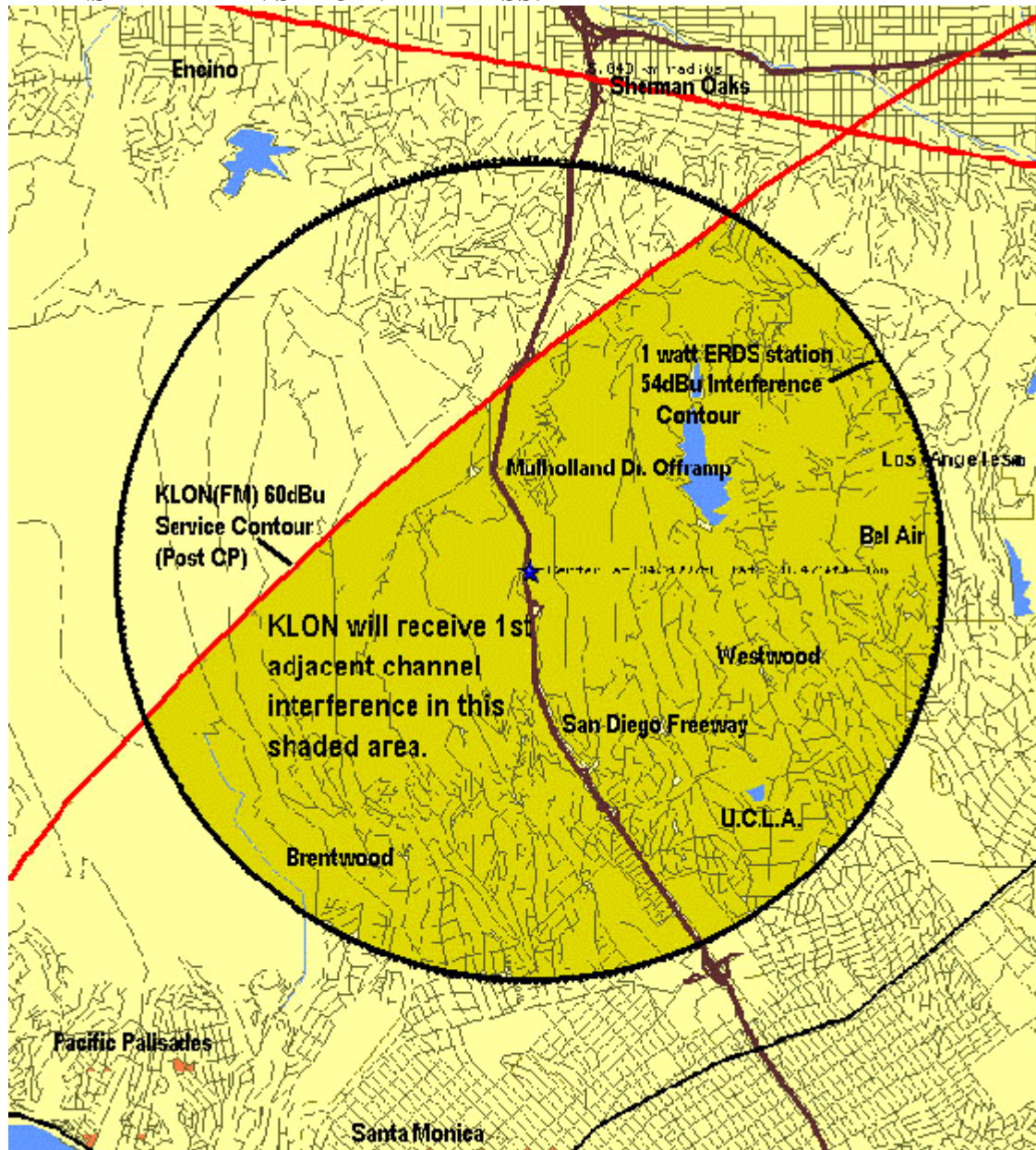
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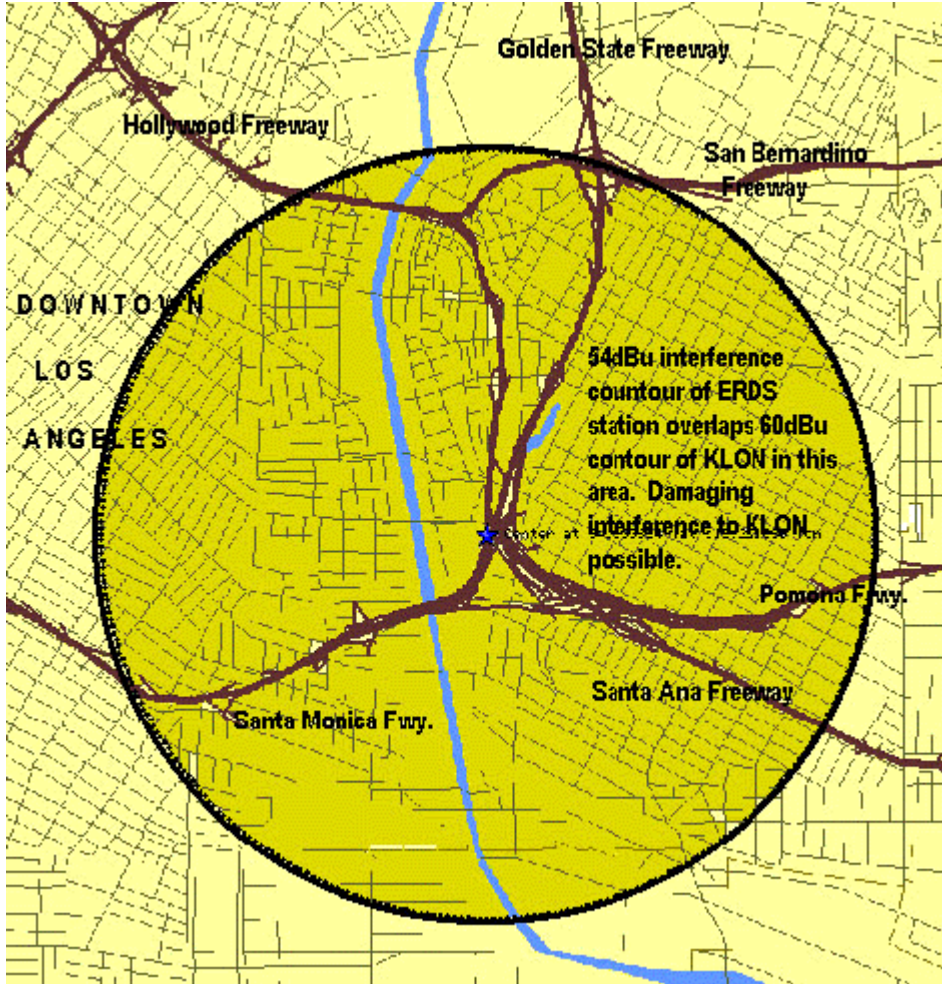
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REC Networks encourages service via e-mail. Please e-mail documents to  
rec@recnet.com. Please submit documents in MS Word, ASCII or PDF formats.

**APPENDIX A-60dBu SERVICE CONTOUR OF KLON(FM) LONG BEACH  
(based on construction permit)**



**APPENDIX B- 54dBu INTERFERENCE CONTOUR OF 1W ERDS MOBILE TRANSMITTER IN SEPULVEDA PASS.**

**APPENDIX C- 54dBu INTERFERENCE CONTOUR OF ERDS STATION AT THE "4-LEVEL" INTERCHANGE IN DOWNTOWN LOS ANGELES.**



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